

IN THE CLAIMS:

Please amend the claims as shown below:

Claims 1-3 (cancelled).

Claim 4 (currently amended): A method of making a GaN single crystal substrate according to claim ~~2~~ 16, wherein said opening windows of said mask layer are stripe windows shaped like stripes.

Claim 5 (original): A method of making a GaN single crystal substrate according to claim 4, wherein said stripe windows extend in a $\langle 10\text{-}10 \rangle$ direction of said lower epitaxial layer made of GaN and have a window width within a range of 0.3 μm to 10 μm and a mask width within a range of 2 μm to 20 μm .

Claim 6 (original): A method of making a GaN single crystal substrate according to claim 4, wherein said stripe windows extend in a $\langle 1\text{-}210 \rangle$ direction of said lower epitaxial layer made of GaN and have a window width within a range of 0.3 μm to 10 μm and a mask width within a range of 2 μm to 20 μm .

Claim 7 (currently amended): A method of making a GaN single crystal substrate according to claim ~~2~~ 16, further comprising after said epitaxial layer growing step:

a GaAs substrate eliminating step of eliminating said GaAs substrate; and

a grinding step of grinding a lower surface of said buffer layer and an upper surface of said epitaxial layer.

Claims 8-12 (canceled)

Claim 13 (currently amended): A method of making a GaN single crystal substrate according to claim 2 16, wherein said buffer layer is formed by hydride VPE.

Claims 14 and 15 (canceled)

Claim 16 (currently amended): A method of making a GaN single crystal substrate comprising:

a buffer layer forming step of forming a buffer layer on said GaAs substrate;

a lower epitaxial layer growing step of growing on said buffer layer a lower epitaxial layer made of GaN;

a mask layer forming step of forming on said lower epitaxial layer, a mask layer having a plurality of opening windows disposed separate from each other; and

an epitaxial layer growing step of growing on said mask layer an upper epitaxial layer made of GaN according to claim 2,

wherein a said mask forming step includes arranging said plurality of said opening windows of said mask layer are arranged with a pitch L in a $\langle 10\text{-}10 \rangle$ direction of said lower epitaxial layer so as to form a $\langle 10\text{-}10 \rangle$ window group, and arranging a plurality of $\langle 10\text{-}10 \rangle$ window groups [being arranged] in parallel with a pitch d ($0.75L \leq d \leq 1.3L$) in a $\langle 1\text{-}210 \rangle$ direction of said lower epitaxial layer.

Claim 17 (original): A method of making a GaN single crystal substrate according to claim 16, wherein said $\langle 10\text{-}10 \rangle$ window groups are arranged in parallel such that the center position of each opening window in each $\langle 10\text{-}10 \rangle$ window group shifts by about $1/2L$ in

said $\langle 10\text{-}10 \rangle$ direction from the center position of each opening window in said $\langle 10\text{-}10 \rangle$ window group adjacent thereto.

Claims 18 and 19 (canceled)

Claim 20 (original): A method of making a GaN single crystal substrate according to claim 16, wherein said pitch L of opening windows is within a range of 3 μm to 10 μm .

Claims 21-24 (canceled)

Claim 25 (original): A method of making a GaN single crystal substrate according to claim 2, wherein said opening windows of said mask layer are rectangular windows in an oblong form having a longitudinal direction aligning with a $\langle 10\text{-}10 \rangle$ direction of said lower epitaxial layer, a plurality of said rectangular windows being arranged with a pitch L in said $\langle 10\text{-}10 \rangle$ direction so as to form a $\langle 10\text{-}10 \rangle$ rectangular window group, a plurality of $\langle 10\text{-}10 \rangle$ rectangular window groups being arranged in parallel with a pitch d in a $\langle 1\text{-}210 \rangle$ direction of said lower epitaxial layer.

Claims 26 (original): A method of making a GaN single crystal substrate according to claim 25, wherein said $\langle 10\text{-}10 \rangle$ rectangular window groups are arranged in parallel such that the center position of each opening rectangular window in each $\langle 10\text{-}10 \rangle$ rectangular window group shifts by about $1/2L$ in said $\langle 10\text{-}10 \rangle$ direction from the center position of each rectangular window in said $\langle 10\text{-}10 \rangle$ rectangular window group adjacent thereto.

Claims 27 and 28 (canceled)

Claim 29 (original): A method of making a GaN single crystal substrate according to claim 25, wherein said rectangular windows have a pitch L of 4 μm to 20 μm , said rectangular windows adjacent to each other in the longitudinal direction of said rectangular windows have a mask length of 1 μm to 4 μm therebetween, each of said rectangular windows has a width w of 1 μm to 5 μm , and said rectangular windows adjacent to each other in the transverse direction of said rectangular windows have a mask width (d - w) of 2 μm to 10 μm therebetween.

Claim 30 (currently amended): A method of making a GaN single crystal substrate according to claim ~~2~~ 16, wherein each of said opening windows of said mask layer is a hexagonal window formed like a hexagonal ring, each of the six sides of said hexagonal window aligning with a $\langle 10\text{-}10 \rangle$ direction of said lower epitaxial layer.

Claims 31-33 (canceled)

Claim 34 (currently amended): A method of making a GaN single crystal substrate according to claim ~~1~~ 16, wherein said epitaxial layer is grown in said epitaxial layer growing step so as to form an ingot of GaN single crystal,

said method further comprising a cleaving step of cleaving said ingot into a plurality of sheets.

Claim 35 (currently amended): A method of making a GaN single crystal substrate according to claim ~~1~~ 16, wherein said epitaxial layer is grown in said epitaxial layer growing step so as to form an ingot of GaN single crystal,

said method further comprising a cleaving step of cleaving said ingot into a plurality of sheets.

Claim 36 (currently amended): A method of making a GaN single crystal substrate comprising:

an ingot forming step of growing on the GaN single crystal substrate obtained by the method according to claim ~~1~~ 16 an epitaxial layer made of GaN so as to form an ingot of GaN single crystal; and

a cutting step of cutting said ingot into a plurality of sheets.

Claim 37 (currently amended): A method of making a GaN single crystal substrate comprising:

an ingot forming step of growing on the GaN single crystal substrate obtained by the method according to claim ~~1~~ 16 an epitaxial layer made of GaN so as to form an ingot of GaN single crystal; and

a cleaving step of cleaving said ingot into a plurality of sheets.

Claims 38-58 (canceled)

Claim 59 (new): A method of making a GaN single crystal substrate according to claim 16, wherein said upper epitaxial layer is vapor phase grown on said mask layer.